IN THE SPECIFICATION

Page 5 lines 19 and 23

The microprocessor output is at pins 6 and 8. Pin 6 is connected directly by line 18 to the drive point B to turn on the bottom transistor in the half bridge. Output Pin 8 is connected by line 53 to high side driver to drive the top transistor at point A through line 17. Since this transistor is not referenced to the common bus, a high side driver must be employed. Power for the high side driver used to drive the transistor is created by charging capacitor 56 through diode ~~53~~ 55 when the bottom transistor is on and the output of the bridge is low.

The voltage across the output load is fed back by line 21 and divided by voltage divider resistors 58 and 59 to a voltage that is acceptable to the processor. It is then fed by line 114 to input 7 to allow the microprocessor software to determine the phase ~~angel~~ angle of the output voltage. By adjusting the frequency to maintain a 90 degree phase shift across the resonant inductor 8 the processor can be sure that the output is always at resonance. The voltage at the junction of resistors 58 and 59 is also rectified by diode 60 and filtered by capacitor 62 and load resistor 61 to input 3 via line 63 to allow the microprocessor to determine the output voltage magnitude. This is very useful when driving the flat panel display of Figure 3.

Page 6 lines 1, 2, 4, 7, 8, 19 and 22

The load current is sensed by sensor 32 of ~~Figure 2~~ Figures 2 and 3 and is fed in via line 22 to capacitor 106 which is part of a voltage doubler consisting of capacitor 106, diode 108 and diode 74. A doubler is used so current sense resistor 32 may be reduced in size by a factor of 2 thus reducing any heat loss in the resistor. The doubled voltage is filtered by capacitor 66 and resistor 65 and presented to analog input at Pin 1 via line 67. The voltage representing the heater current is fed on line 73 to doubler consisting of capacitor 105, diode 107 and diode ~~74~~ 64 and filtered by capacitor 76 and load resistor 75 and fed by line 77 to the microprocessor . at input 2. Local control of the output power may be adjusted by potentiometer 70 of Figure 2, the wiper of which is connected at input 17 vis line 28. Resistor 71 in series with potentiometer 70 sets the minimum output level. The output voltage from the photocell may be both analog or digital and is carried by line 27 to the microprocessor input at Pin 18. This form of a light sensing device 33 is also referred to as a photocell.

Referring back to Figure 4, ~~Remote~~ remote control is normally a pulse width modulation control signal and therefore it is digital and will be presented by line 30 to digital input at Pin 12. If a power line carrier signal is sent, it is sensed on lines 25 and 26 at inputs 10 and 11 which look for changes on the power line signal ~~at the zero crossing point~~. Two inputs are used to look for each half cycle of the power line .